

Beachlands Wastewater Scheme - Short list options

Option 3: 100% Irrigation to land

Locality map

Beachlands Wastewater Scheme - Short list options

Option 3: 100% Irrigation to Land



Option 3 100% Land Irrigation

Short List Discharge Options

Stantec **Watercare**

Data Sources: NIWA, LINZ NZ, Stantec NZ Basemap Service Credits: Auckland Council, Maxar, Esri Community Maps Contributors, LINZ, Stats NZ, Esri, HERE, Garmin, Foursquare, METI/ NASA, USGS, Stats NZ, Esri, HERE, Garmin, Foursquare, FAO, METI/NASA, USGS
Coordinate System: NZGD 2000 New Zealand Transverse Mercator

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Legend

- Land Irrigation Area 750ha
- Beachlands WWTP Designation Boundary
- Beachlands WWTP Property Boundary
- Wastewater Catchments
- Plan Change 88 Area

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Discharge location

750 ha of land within 10km radius of the Beachlands Wastewater Treatment Plant (WWTP).

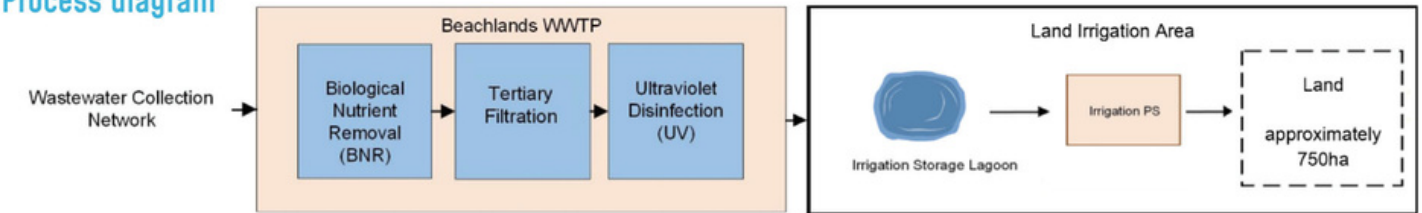
Treatment option

- Biological Nutrient Removal (BNR).
 - Tertiary Filtration.
 - Ultraviolet disinfection (UV).
- BNR + Tertiary Filtration + UV disinfection.

Treatment location

Existing Beachlands Wastewater Treatment Plant (WWTP) site.

Process diagram



Typical treated water quality

Population Equivalent	30,000
Average Daily Flow (ADF) m ³ /day	6,000
Parameter	Median Concentration mg/L
Biochemical Oxygen Demand (BOD)	20
Total Suspended Solids (TSS)	20
Total Nitrogen (TN)	7.0
Total Phosphorus (TP)	5.0
Faecal Coliforms	<100 cfu/100ml

Key components

Item	Description
Conveyance system	Convey wastewater to 750 ha of land within 10km radius of the Beachlands WWTP.
Treatment system	Existing Beachlands WWTP site. BNR + Tertiary Filtration + UV disinfection.
Discharge system	Low pressure sprinklers irrigating to land.

Indicative costs

Capital	\$360M to \$520M	Operating and maintenance	\$54M	Whole of life	\$414M to \$574M
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